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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/066,521	01/31/2002	John Bertin	16953-002001	3688
26161	7590	10/27/2006	EXAMINER	
FISH & RICHARDSON PC P.O. BOX 1022 MINNEAPOLIS, MN 55440-1022			CANELLA, KAREN A	
			ART UNIT	PAPER NUMBER
			1643	

DATE MAILED: 10/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Supplemental
Notice of Allowability**

Application No.

10/066,521

Examiner

Karen A. Canella

Applicant(s)

BERTIN ET AL.

Art Unit

1643

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Printer Query of March 28, 2006.
2. ☒ The allowed claim(s) is/are 1, 4, 6, 7, 11, 21 and 34, renumbered as 1, 2, 5, 6, 7, 3 and 4, respectively.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: ____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date ____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date ____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date ____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date ____
7. ☒ Examiner's Amendment/Comment
8. ☐ Examiner's Statement of Reasons for Allowance
9. ☒ Other Attachment.


KAREN A. CANELLA PH.D
PRIMARY EXAMINER

Art Unit: 1643

EXAMINER'S AMENDMENT

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Jack Brennan on July 11, 2006.

The application has been amended as follows:


The specification has been amended as follows:

See Attachment

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen A. Canella whose telephone number is (571)272-0828. The examiner can normally be reached on 10-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Helms can be reached on (571)272-0832. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


KARENA. CANELLA PH.D
PRIMARY EXAMINER

Karen A. Canella, Ph.D.

10/24/2006

Attachment to Paper No:
2006 1024

Amendments to the Specification:

Replace the paragraph beginning at page 9, line 3 with the following amended paragraph:

The invention features a nucleic acid molecule which is at least 45% (or 55%, 65%, 75%, 85%, 95%, or 98%) identical to the nucleotide sequence shown in SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, ~~the nucleotide sequence of the cDNA insert of the plasmid deposited with the ATCC as~~ Accession Number _____ (the "cDNA of ATCC _____"), ~~the nucleotide sequence of the cDNA insert of the plasmid deposited with the ATCC as~~ Accession Number _____ (the "cDNA of ATCC _____"), ~~the nucleotide sequence of the cDNA insert of the plasmid deposited with the~~ ATCC as Accession Number _____ (the "cDNA of ATCC _____"), ~~the nucleotide sequence of~~ the cDNA insert of the plasmid deposited with the ATCC as Accession Number _____ (the "cDNA of ATCC _____"), ~~the nucleotide sequence of the cDNA insert of the plasmid~~ deposited with the ATCC as Accession Number _____ (the "cDNA of ATCC _____"), ~~the nucleotide sequence of the cDNA insert of the plasmid deposited with the ATCC as~~ Accession Number _____ (the "cDNA of ATCC _____"), ~~the nucleotide sequence of the cDNA insert of~~ the plasmid deposited with the ATCC as Accession Number _____ (the "cDNA of ATCC _____"), ~~the nucleotide sequence of the cDNA insert of the plasmid deposited with the ATCC~~ as Accession Number _____ (the "cDNA of ATCC _____"), or a complement thereof.

Replace the paragraph beginning at page 9, line 22 with the following amended paragraph:

The invention features a nucleic acid molecule which includes a fragment of at least 150 (300, 325, 350, 375, 400, 425, 450, 500, 550, 600, 650, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1800, 2000, 2250, 2500, 2750, 3000, 3250, 3500, 3750, or 4000) nucleotides of the nucleotide sequence shown in SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, ~~the nucleotide~~

~~sequence of the cDNA of ATCC _____, the nucleotide sequence of the cDNA of ATCC _____,
the nucleotide sequence of the cDNA of ATCC _____, the nucleotide sequence of the cDNA of
ATCC _____, the nucleotide sequence of the cDNA of ATCC _____, the nucleotide sequence of
the cDNA of ATCC _____, the nucleotide sequence of the cDNA of ATCC _____, the
nucleotide sequence of the cDNA of ATCC _____, or a complement thereof.~~

Replace the paragraph beginning at page 9, line 34 with the following amended paragraph:

The invention also features a nucleic acid molecule that hybridizes to a nucleic acid molecule consisting of the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:25, ~~the nucleotide sequence of the cDNA of ATCC _____, the nucleotide sequence of the cDNA of ATCC _____, the nucleotide sequence of the cDNA of ATCC _____, the nucleotide sequence of the cDNA of ATCC _____, the nucleotide sequence of the cDNA of ATCC _____, the nucleotide sequence of the cDNA of ATCC _____, the nucleotide sequence of the cDNA of ATCC _____, the nucleotide sequence of the cDNA of ATCC _____, the nucleotide sequence of the cDNA of ATCC _____, or a complement thereof,~~ under conditions of incubation at 45°C in 6.0X SSC followed by washing in 0.2X SSC/0.1% SDS at 65°C.

Replace the paragraph beginning at page 10, line 9 with the following amended paragraph:

In an embodiment, a PYRIN-2 nucleic acid molecule has the nucleotide sequence shown in SEQ ID NO:1 ~~or the nucleotide sequence of the cDNA of ATCC _____.~~

Replace the paragraph beginning at page 10, line 11 with the following amended paragraph:

Also within the invention is a nucleic acid molecule which encodes a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:2 ~~or the polypeptide encoded by the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 10, line 14 with the following amended paragraph:

The invention includes a nucleic acid molecule which encodes a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:2, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule consisting of SEQ ID NO:1 ~~or the nucleotide sequence of the cDNA of ATCC _____~~ under stringent conditions.

Replace the paragraph beginning at page 10, line 28 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-2 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the amino acid sequence of SEQ ID NO:2 ~~or the amino acid sequence encoded by the cDNA of ATCC _____~~; an isolated PYRIN-2 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the pyrin domain of SEQ ID NO:2 (e.g., about amino acid residues 1-93 of SEQ ID NO:2); an isolated PYRIN-2 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the NBS domain of SEQ ID NO:2 (e.g., about amino acids 146-169 of SEQ ID NO:2); an isolated PYRIN-2 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 1a domain of SEQ ID NO:2 (e.g., about amino acids 146-169 of SEQ ID NO:2); an isolated PYRIN-2 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the LRR domain of SEQ ID NO:2 (e.g., about amino acids 196-449 of SEQ ID NO:2); and an isolated PYRIN-2 protein

having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to one or more of the leucine rich repeats of SEQ ID NO:2 (e.g., about amino acids residues 196-223, 250-278, 280-307, 308-335, 337-364, 365-392, 394-421, and 422-449 of SEQ ID NO:2).

Replace the paragraph beginning at page 11, line 10 with the following amended paragraph:

In an embodiment, a PYRIN-3 nucleic acid molecule has the nucleotide sequence shown in SEQ ID NO:3, SEQ ID NO:23, or SEQ ID NO:25, ~~or the nucleotide sequence of the cDNA of ATCC _____.~~

Replace the paragraph beginning at page 11, line 13 with the following amended paragraph:

Also within the invention is a nucleic acid molecule which encodes a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:4, or SEQ ID NO:24, ~~or the polypeptide encoded by the cDNA of ATCC _____.~~

Replace the paragraph beginning at page 11, line 16 with the following amended paragraph:

The invention includes a nucleic acid molecule which encodes a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:4 or SEQ ID NO:24, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule consisting of SEQ ID NO:3, or SEQ ID NO:25, ~~or the nucleotide sequence of the cDNA of ATCC _____~~ under stringent conditions.

Replace the paragraph beginning at page 11, line 31 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-3 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the amino acid sequence of SEQ ID NO:4, or SEQ ID NO:24, ~~or the amino acid sequence encoded by the cDNA of ATCC _____~~; and an isolated PYRIN-3 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the pyrin domain of SEQ ID NO:4 or SEQ ID NO:24 (e.g., about amino acid residues 1-83 of SEQ ID NO:4 or SEQ ID NO:24); an isolated PYRIN-3 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the NBS domain of SEQ ID NO:24 (e.g., about amino acids 150-466 of SEQ ID NO:24); an isolated PYRIN-3 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 1a domain of SEQ ID NO:24 (e.g., about amino acids 150-172 of SEQ ID NO:24); an isolated PYRIN-3 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif II domain of SEQ ID NO:24 (e.g., about amino acids 179-209 of SEQ ID NO:24); an isolated PYRIN-3 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 2 domain of SEQ ID NO:24 (e.g., about amino acids 213-236 of SEQ ID NO:24); an isolated PYRIN-3 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 3a domain of SEQ ID NO:24 (e.g., about amino acids 257-282 of SEQ ID NO:24); an isolated PYRIN-3 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif V domain of SEQ ID NO:24 (e.g., about amino acids 333-353 of SEQ ID NO:24); an isolated PYRIN-3 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif VI domain of SEQ ID NO:24 (e.g., about amino acids 421-436 of SEQ ID NO:24); an isolated PYRIN-3 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif VII domain of SEQ ID NO:24 (e.g., about amino acids 447-466 of SEQ ID NO:24); an isolated PYRIN-3 protein having an amino acid sequence

that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the LRR domain of SEQ ID NO:24 (e.g., about amino acids 637-947 of SEQ ID NO:24); and an isolated PYRIN-3 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to one or more of the leucine rich repeats of SEQ ID NO:24 (e.g., about amino acids residues 637-664, 722-749, 750-776, 806-833, 835-862, 863-890, 892-919, and 920-947 of SEQ ID NO:24).

Replace the paragraph beginning at page 12, line 29 with the following amended paragraph:

In an embodiment, a PYRIN-5 nucleic acid molecule has the nucleotide sequence shown in SEQ ID NO:5 ~~or the nucleotide sequence of the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 12, line 31 with the following amended paragraph:

Also within the invention is a nucleic acid molecule which encodes a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:6 ~~or the polypeptide encoded by the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 12, line 34 with the following amended paragraph:

The invention includes a nucleic acid molecule which encodes a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:6, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule consisting of SEQ ID NO:5 ~~or the nucleotide sequence of the cDNA of ATCC _____~~ under stringent conditions.

Replace the paragraph beginning at page 13, line 12 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-5 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the amino acid sequence of SEQ ID NO:6 ~~or the amino acid sequence encoded by the cDNA of ATCC~~ ; an isolated PYRIN-5 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the pyrin domain of SEQ ID NO:6 (e.g., about amino acid residues 1-91 of SEQ ID NO:6); an isolated PYRIN-5 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the NBS domain of SEQ ID NO:6 (e.g., about amino acids 188-506 of SEQ ID NO:6); an isolated PYRIN-5 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 1a domain of SEQ ID NO:6 (e.g., about amino acids 188-211 of SEQ ID NO:6); an isolated PYRIN-5 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif II domain of SEQ ID NO:6 (e.g., about amino acids 218-248 of SEQ ID NO:6); an isolated PYRIN-5 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 2 domain of SEQ ID NO:6 (e.g., about amino acids 252-275 of SEQ ID NO:6); an isolated PYRIN-5 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 3a domain of SEQ ID NO:6 (e.g., about amino acids 295-320 of SEQ ID NO:6); an isolated PYRIN-5 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif V domain of SEQ ID NO:6 (e.g., about amino acids 371-391 of SEQ ID NO:6); an isolated PYRIN-5 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif VI domain of SEQ ID NO:6 (e.g., about amino acids 461-476 of SEQ ID NO:6); an isolated PYRIN-5 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif VII domain of SEQ ID NO:6 (e.g., about amino acids 487-506 of SEQ ID NO:6); an isolated PYRIN-5 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or

98% identical to the LRR domain of SEQ ID NO:6 (e.g., about amino acids 688-1056 of SEQ ID NO:6); and an isolated PYRIN-5 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to one or more of the leucine rich repeats of SEQ ID NO:6 (e.g., about amino acids residues 688-715, 744-771, 773-800, 801-828, 830-857, 858-885, 887-914, 915-942, 944-971, 972-1000, 1001-1028, and 1029-1056 of SEQ ID NO:6).

Replace the paragraph beginning at page 14, line 10 with the following amended paragraph:

In an embodiment, a PYRIN-6 nucleic acid molecule has the nucleotide sequence shown in SEQ ID NO:7 ~~or the nucleotide sequence of the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 14, line 12 with the following amended paragraph:

Also within the invention is a nucleic acid molecule which encodes a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:8 ~~or the polypeptide encoded by the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 14, line 15 with the following amended paragraph:

The invention includes a nucleic acid molecule which encodes a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:8, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule consisting of SEQ ID NO:7 ~~or the nucleotide sequence of the cDNA of ATCC _____~~ under stringent conditions.

Replace the paragraph beginning at page 14, line 29 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-6 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the amino

acid sequence of SEQ ID NO:8 ~~or the amino acid sequence encoded by the cDNA of ATCC~~
~~_____~~; and an isolated PYRIN-6 protein having an amino acid sequence that is at least about
65%, preferably 75%, 85%, 95%, or 98% identical to the pyrin domain of SEQ ID NO:8 (e.g.,
about amino acid residues 1-91 of SEQ ID NO:8).

Replace the paragraph beginning at page 15, line 1 with the following amended
paragraph:

In an embodiment, a PYRIN-7 nucleic acid molecule has the nucleotide sequence shown
in SEQ ID NO:9, SEQ ID NO:11, or SEQ ID NO:12, ~~or the nucleotide sequence of the cDNA of~~
~~ATCC _____~~.

Replace the paragraph beginning at page 15, line 4 with the following amended
paragraph:

Also within the invention is a nucleic acid molecule which encodes a fragment of a
polypeptide having the amino acid sequence of SEQ ID NO:10; or SEQ ID NO:13, ~~or the~~
~~polypeptide encoded by the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 15, line 7 with the following amended
paragraph:

The invention includes a nucleic acid molecule which encodes a naturally occurring
allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:10 or SEQ
ID NO:13, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule consisting of
SEQ ID NO:9, SEQ ID NO:11, or SEQ ID NO:12, ~~or the nucleotide sequence of the cDNA of~~
~~ATCC _____~~ under stringent conditions.

Replace the paragraph beginning at page 15, line 22 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-7 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the amino acid sequence of SEQ ID NO:10; or SEQ ID NO:13; ~~or the amino acid sequence encoded by the cDNA of ATCC _____~~; an isolated PYRIN-7 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the pyrin domain of SEQ ID NO:10 or SEQ ID NO:13 (e.g., about amino acid residues 1-52 of SEQ ID NO:10 or 1-98 of SEQ ID NO:13); an isolated PYRIN-7 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the NBS domain of SEQ ID NO:10 or SEQ ID NO:13 (e.g., about amino acids 167-480 of SEQ ID NO:13); an isolated PYRIN-7 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 1a domain of SEQ ID NO:10 or SEQ ID NO:13 (e.g., about amino acids 167-190 of SEQ ID NO:13); an isolated PYRIN-7 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif II domain of SEQ ID NO:10 or SEQ ID NO:13 (e.g., about amino acids 197-227 of SEQ ID NO:13); an isolated PYRIN-7 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 2 domain of SEQ ID NO:10 or SEQ ID NO:13 (e.g., about amino acids 231-254 of SEQ ID NO:13); an isolated PYRIN-7 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 3a domain of SEQ ID NO:10 or SEQ ID NO:13 (e.g., about amino acids 270-295 of SEQ ID NO:13); an isolated PYRIN-7 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif V domain of SEQ ID NO:10 or SEQ ID NO:13 (e.g., about amino acids 346-366 of SEQ ID NO:13); an isolated PYRIN-7 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif VI domain of SEQ ID NO:10 or SEQ ID NO:13 (e.g., about amino acids 435-450 of SEQ ID NO:13); and an isolated PYRIN-7 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to

the Motif VII domain of SEQ ID NO:10 or SEQ ID NO:13 (e.g., about amino acids 461-480 of SEQ ID NO:13).

Replace the paragraph beginning at page 16, line 16 with the following amended paragraph:

In an embodiment, a PYRIN-8 nucleic acid molecule has the nucleotide sequence shown in SEQ ID NO:14, SEQ ID NO:16, or SEQ ID NO:17, ~~or the nucleotide sequence of the cDNA of ATCC _____.~~

Replace the paragraph beginning at page 16, line 19 with the following amended paragraph:

Also within the invention is a nucleic acid molecule which encodes a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:15; or SEQ ID NO:18, ~~or the polypeptide encoded by the cDNA of ATCC _____.~~

Replace the paragraph beginning at page 16, line 22 with the following amended paragraph:

The invention includes a nucleic acid molecule which encodes a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:15 or SEQ ID NO:18, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule consisting of SEQ ID NO:14, SEQ ID NO:16, or SEQ ID NO:17, ~~or the nucleotide sequence of the cDNA of ATCC _____~~ under stringent conditions.

Replace the paragraph beginning at page 17, line 1 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-8 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the amino acid sequence of SEQ ID NO:15; or SEQ ID NO:18, ~~or the amino acid sequence encoded by the~~

~~cDNA of ATCC~~ _____; an isolated PYRIN-8 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the pyrin domain of SEQ ID NO:15 or SEQ ID NO:18 (e.g., about amino acid residues 1-65 of SEQ ID NO:15 or 1-107 of SEQ ID NO:18); an isolated PYRIN-8 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the NBS domain of SEQ ID NO:15 or SEQ ID NO:18 (e.g., about amino acids 212-528 of SEQ ID NO:18); an isolated PYRIN-8 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 1a domain of SEQ ID NO:15 or SEQ ID NO:18 (e.g., about amino acids 212-234 of SEQ ID NO:18); an isolated PYRIN-8 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif II domain of SEQ ID NO:15 or SEQ ID NO:18 (e.g., about amino acids 241-272 of SEQ ID NO:18); an isolated PYRIN-8 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 2 domain of SEQ ID NO:15 or SEQ ID NO:18 (e.g., about amino acids 276-299 of SEQ ID NO:18); an isolated PYRIN-8 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 3a domain of SEQ ID NO:15 or SEQ ID NO:18 (e.g., about amino acids 320-345 of SEQ ID NO:18); an isolated PYRIN-8 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif V domain of SEQ ID NO:15 or SEQ ID NO:18 (e.g., about amino acids 396-416 of SEQ ID NO:18); an isolated PYRIN-8 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif VI domain of SEQ ID NO:15 or SEQ ID NO:18 (e.g., about amino acids 483-498 of SEQ ID NO:18); an isolated PYRIN-8 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif VII domain of SEQ ID NO:15 or SEQ ID NO:18 (e.g., about amino acids 509-528 of SEQ ID NO:18); an isolated PYRIN-8 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the LRR domain of SEQ ID NO:15 or SEQ ID NO:18 (e.g., about amino acids 712-1052 of SEQ ID NO:18); and an isolated PYRIN-8 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or

98% identical to one or more of the leucine rich repeats of SEQ ID NO:15 or SEQ ID NO:18 (e.g., about amino acids residues 712-739, 741-768, 769-796, 798-825, 826-853, 855-882, 883-910, 912-939, 940-967, 969-996, 997-1024, and 1026-1052 of SEQ ID NO:18).

Replace the paragraph beginning at page 18, line 3 with the following amended paragraph:

In an embodiment, a PYRIN-10 nucleic acid molecule has the nucleotide sequence shown in SEQ ID NO:19 ~~or the nucleotide sequence of the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 18, line 6 with the following amended paragraph:

Also within the invention is a nucleic acid molecule which encodes a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:20 ~~or the polypeptide encoded by the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 18, line 9 with the following amended paragraph:

The invention includes a nucleic acid molecule which encodes a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:20, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule consisting of SEQ ID NO:19 ~~or the nucleotide sequence of the cDNA of ATCC _____~~ under stringent conditions.

Replace the paragraph beginning at page 18, line 23 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-10 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the amino acid sequence of SEQ ID NO:20 ~~or the amino acid sequence encoded by the cDNA of ATCC _____~~; an isolated PYRIN-10 protein having an amino acid sequence that is at least about 65%,

preferably 75%, 85%, 95%, or 98% identical to the pyrin domain of SEQ ID NO:20 (e.g., about amino acid residues 41-112 of SEQ ID NO:20); an isolated PYRIN-10 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the LRR domain of SEQ ID NO:20 (e.g., about amino acids 210-440 of SEQ ID NO:20); and an isolated PYRIN-10 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to one or more of the leucine rich repeats of SEQ ID NO:20 (e.g., about amino acids residues 210-237, 267-294, 299-326, 356-383, 385-412, and 413-440 of SEQ ID NO:20).

Replace the paragraph beginning at page 19, line 1 with the following amended paragraph:

In an embodiment, a PYRIN-11 nucleic acid molecule has the nucleotide sequence shown in SEQ ID NO:21 ~~or the nucleotide sequence of the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 19, line 4 with the following amended paragraph:

Also within the invention is a nucleic acid molecule which encodes a fragment of a polypeptide having the amino acid sequence of SEQ ID NO:22 ~~or the polypeptide encoded by the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 19, line 7 with the following amended paragraph:

The invention includes a nucleic acid molecule which encodes a naturally occurring allelic variant of a polypeptide comprising the amino acid sequence of SEQ ID NO:22, wherein the nucleic acid molecule hybridizes to a nucleic acid molecule consisting of SEQ ID NO:21 ~~or the nucleotide sequence of the cDNA of ATCC _____~~ under stringent conditions.

Replace the paragraph beginning at page 19, line 21 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-11 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the amino acid sequence of SEQ ID NO:22 ~~or the amino acid sequence encoded by the cDNA of ATCC~~ ; an isolated PYRIN-11 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the pyrin domain of SEQ ID NO:22 (e.g., about amino acid residues 1-102 of SEQ ID NO:22); an isolated PYRIN-11 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the NBS domain of SEQ ID NO:22 (e.g., about amino acids 177-494 of SEQ ID NO:22); an isolated PYRIN-11 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 1a domain of SEQ ID NO:22 (e.g., about amino acids 177-200 of SEQ ID NO:22); an isolated PYRIN-11 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif II domain of SEQ ID NO:22 (e.g., about amino acids 207-237 of SEQ ID NO:22); an isolated PYRIN-11 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 2 domain of SEQ ID NO:22 (e.g., about amino acids 241-264 of SEQ ID NO:22); an isolated PYRIN-11 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the kinase 3a domain of SEQ ID NO:22 (e.g., about amino acids 285-310 of SEQ ID NO:22); an isolated PYRIN-11 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif V domain of SEQ ID NO:22 (e.g., about amino acids 361-381 of SEQ ID NO:22); an isolated PYRIN-11 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif VI domain of SEQ ID NO:22 (e.g., about amino acids 449-464 of SEQ ID NO:22); an isolated PYRIN-11 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to the Motif VII domain of SEQ ID NO:22 (e.g., about amino acids 475-494 of SEQ ID NO:22); an isolated PYRIN-11 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or

98% identical to the LRR domain of SEQ ID NO:22 (e.g., about amino acids 615-813 of SEQ ID NO:22); and an isolated PYRIN-11 protein having an amino acid sequence that is at least about 65%, preferably 75%, 85%, 95%, or 98% identical to one or more of the leucine rich repeats of SEQ ID NO:22 (e.g., about amino acids residues 615-642, 644-671, 672-699, 701-728, 729-756, 758-785, and 786-813 of SEQ ID NO:22).

Replace the paragraph beginning at page 20, line 19 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-2 protein which is encoded by a nucleic acid molecule having a nucleotide sequence that is at least about 65%, preferably 75%, 85%, or 95% identical to SEQ ID NO:1 ~~or the cDNA of ATCC _____~~; an isolated PYRIN-2 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the pyrin domain encoding portion of SEQ ID NO:1; an isolated PYRIN-2 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the NBS domain encoding portion of SEQ ID NO:1; an isolated PYRIN-2 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the kinase 1a encoding portion of SEQ ID NO:1; an isolated PYRIN-2 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the LRR domain encoding portion of SEQ ID NO:1 or one or more leucine rich repeat encoding portions of SEQ ID NO:1; and an isolated PYRIN-2 protein which is encoded by a nucleic acid molecule having a nucleotide sequence which hybridizes under stringent hybridization conditions to a nucleic acid molecule having the nucleotide sequence of SEQ ID NO:1 ~~or the non-coding strand of the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 21, line 1 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-3 protein which is encoded by a nucleic acid molecule having a nucleotide sequence that is at least about 65%, preferably 75%, 85%, or 95% identical to SEQ ID NO:3, SEQ ID NO:23, or SEQ ID NO:25, ~~or the cDNA of ATCC _____~~; an isolated PYRIN-3 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the pyrin domain encoding portion of SEQ ID NO:3, SEQ ID NO:23, or SEQ ID NO:25; an isolated PYRIN-3 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the NBS domain encoding portion of SEQ ID NO:23 or SEQ ID NO:25; an isolated PYRIN-3 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the kinase 1a, Motif II, kinase 2, kinase 3a region, Motif V, Motif VI, or Motif VII encoding portion of SEQ ID NO:23 or SEQ ID NO:25; an isolated PYRIN-3 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the LRR domain encoding portion of SEQ ID NO:23 or SEQ ID NO:25 or one or more leucine rich repeat encoding portions of SEQ ID NO:23 or SEQ ID NO:25; and an isolated PYRIN-3 protein which is encoded by a nucleic acid molecule having a nucleotide sequence which hybridizes under stringent hybridization conditions to a nucleic acid molecule having the nucleotide sequence of SEQ ID NO:3, SEQ ID NO:23, or SEQ ID NO:25, ~~or the non-coding strand of the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 21, line 22 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-5 protein which is encoded by a nucleic acid molecule having a nucleotide sequence that is at least about 65%, preferably 75%, 85%, or 95% identical to SEQ ID NO:5 ~~or the cDNA of ATCC _____~~; an isolated PYRIN-5 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65%

preferably 75%, 85%, or 95% identical to the pyrin domain encoding portion of SEQ ID NO:5; an isolated PYRIN-5 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the NBS domain encoding portion of SEQ ID NO:5; an isolated PYRIN-5 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the kinase 1a, Motif II, kinase 2, kinase 3a region, Motif V, Motif VI, or Motif VII encoding portion of SEQ ID NO:5; an isolated PYRIN-5 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the LRR domain encoding portion of SEQ ID NO:5 or one or more leucine rich repeat encoding portions of SEQ ID NO:5; and an isolated PYRIN-5 protein which is encoded by a nucleic acid molecule having a nucleotide sequence which hybridizes under stringent hybridization conditions to a nucleic acid molecule having the nucleotide sequence of SEQ ID NO:5 ~~or the non-coding strand of the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 22, line 4 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-6 protein which is encoded by a nucleic acid molecule having a nucleotide sequence that is at least about 65%, preferably 75%, 85%, or 95% identical to SEQ ID NO:7 ~~or the cDNA of ATCC _____~~; an isolated PYRIN-6 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the pyrin domain encoding portion of SEQ ID NO:7; and an isolated PYRIN-6 protein which is encoded by a nucleic acid molecule having a nucleotide sequence which hybridizes under stringent hybridization conditions to a nucleic acid molecule having the nucleotide sequence of SEQ ID NO:7 ~~or the non-coding strand of the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 22, line 13 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-7 protein which is encoded by a nucleic acid molecule having a nucleotide sequence that is at least about 65%, preferably 75%, 85%, or 95% identical to SEQ ID NO:9, SEQ ID NO:11, or SEQ ID NO:12, ~~or the cDNA of ATCC~~ _____; an isolated PYRIN-7 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the pyrin domain encoding portion of SEQ ID NO:9, SEQ ID NO:11, or SEQ ID NO:12; an isolated PYRIN-7 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the NBS domain encoding portion of SEQ ID NO:9, SEQ ID NO:11, or SEQ ID NO:12; an isolated PYRIN-7 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the kinase 1a, Motif II, kinase 2, kinase 3a region, Motif V, Motif VI, or Motif VII encoding portion of SEQ ID NO:9, SEQ ID NO:11, or SEQ ID NO:12; and an isolated PYRIN-7 protein which is encoded by a nucleic acid molecule having a nucleotide sequence which hybridizes under stringent hybridization conditions to a nucleic acid molecule having the nucleotide sequence of SEQ ID NO:9, SEQ ID NO:11, or SEQ ID NO:12 ~~or the non-coding strand of the cDNA of ATCC~~ _____.

Replace the paragraph beginning at page 22, line 30 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-8 protein which is encoded by a nucleic acid molecule having a nucleotide sequence that is at least about 65%, preferably 75%, 85%, or 95% identical to SEQ ID NO:14, SEQ ID NO:16, or SEQ ID NO:17, ~~or the cDNA of ATCC~~ _____; an isolated PYRIN-8 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the pyrin domain encoding portion of SEQ ID NO:14, SEQ ID NO:16, or SEQ ID NO:17; an isolated PYRIN-8 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at

least about 65% preferably 75%, 85%, or 95% identical to the NBS domain encoding portion of SEQ ID NO:14, SEQ ID NO:16, or SEQ ID NO:17; an isolated PYRIN-8 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the kinase 1a, Motif II, kinase 2, kinase 3a region, Motif V, Motif VI, or Motif VII encoding portion of SEQ ID NO:14, SEQ ID NO:16, or SEQ ID NO:17; an isolated PYRIN-8 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the LRR domain encoding portion of SEQ ID NO:14, SEQ ID NO:16, or SEQ ID NO:17 or one or more leucine rich repeat encoding portions of SEQ ID NO:14, SEQ ID NO:16, or SEQ ID NO:17; and an isolated PYRIN-8 protein which is encoded by a nucleic acid molecule having a nucleotide sequence which hybridizes under stringent hybridization conditions to a nucleic acid molecule having the nucleotide sequence of SEQ ID NO:14, SEQ ID NO:16, or SEQ ID NO:17 ~~or the non-coding strand of the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 23, line 16 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-10 protein which is encoded by a nucleic acid molecule having a nucleotide sequence that is at least about 65%, preferably 75%, 85%, or 95% identical to SEQ ID NO:19 ~~or the cDNA of ATCC _____~~; an isolated PYRIN-10 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the pyrin domain encoding portion of SEQ ID NO:19; an isolated PYRIN-10 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the LRR domain encoding portion of SEQ ID NO:19 or one or more leucine rich repeat encoding portions of SEQ ID NO:19; and an isolated PYRIN-10 protein which is encoded by a nucleic acid molecule having a nucleotide sequence which hybridizes under stringent hybridization conditions to a nucleic acid molecule having the nucleotide sequence of SEQ ID NO:19 ~~or the non-coding strand of the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 23, line 29 with the following amended paragraph:

Also within the invention are: an isolated PYRIN-11 protein which is encoded by a nucleic acid molecule having a nucleotide sequence that is at least about 65%, preferably 75%, 85%, or 95% identical to SEQ ID NO:21 ~~or the cDNA of ATCC _____~~; an isolated PYRIN-11 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the pyrin domain encoding portion of SEQ ID NO:21; an isolated PYRIN-11 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the NBS domain encoding portion of SEQ ID NO:21; an isolated PYRIN-11 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the kinase 1a, Motif II, kinase 2, kinase 3a region, Motif V, Motif VI, or Motif VII encoding portion of SEQ ID NO:21; an isolated PYRIN-11 protein which is encoded by a nucleic acid molecule having a nucleotide sequence at least about 65% preferably 75%, 85%, or 95% identical to the LRR domain encoding portion of SEQ ID NO:21 or one or more leucine rich repeat encoding portions of SEQ ID NO:21; and an isolated PYRIN-11 protein which is encoded by a nucleic acid molecule having a nucleotide sequence which hybridizes under stringent hybridization conditions to a nucleic acid molecule having the nucleotide sequence of SEQ ID NO:21 ~~or the non-coding strand of the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 24, line 16 with the following amended paragraph:

Another embodiment of the invention features PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 nucleic acid molecules which specifically detect PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 nucleic acid molecules, relative to nucleic acid molecules encoding other members of the PYRIN/NBS/LRR superfamily. For example, in one embodiment, a PYRIN-2, PYRIN-3,

PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 nucleic acid molecule hybridizes under stringent conditions to a nucleic acid molecule comprising the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, ~~the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, or a complement thereof.~~ In another embodiment, the PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 nucleic acid molecule is at least 300 (350, 400, 450, 500, 550, 600, 650, 700, 800, 900, 1000, 1100, 1200, 1300, 1400, 1500, 1600, 1800, 2000, 2250, 2500, 2750, 3000, 3250, 3500, 3750, or 4000) nucleotides in length and hybridizes under stringent conditions to a nucleic acid molecule comprising the nucleotide sequence shown in SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, ~~the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, or a complement thereof.~~ In another embodiment, an isolated PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 nucleic acid molecule comprises the pyrin domain encoding portion of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, or a complement thereof. In another embodiment, an isolated PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 nucleic acid molecule comprises the NBS domain encoding portion of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, or a complement thereof. In another embodiment, an isolated PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 nucleic acid molecule

comprises the LRR domain encoding portion of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, or a complement thereof. In yet another embodiment, the invention provides an isolated nucleic acid molecule which is antisense to the coding strand of a PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 nucleic acid.

Delete the paragraph beginning at page 44, line 2, which starts with "A plasmid containing".

Delete the paragraph beginning at page 44, line 9, which starts with "A plasmid containing".

Delete the paragraph beginning at page 45, line 4, which starts with "A plasmid containing".

Delete the paragraph beginning at page 45, line 11, which starts with "A plasmid containing".

Delete the paragraph beginning at page 45, line 18, which starts with "A plasmid containing".

Delete the paragraph beginning at page 45, line 25, which starts with "A plasmid containing".

Delete the paragraph beginning at page 45, line 32, which starts with "A plasmid containing".

In another embodiment, an isolated nucleic acid molecule of the invention comprises a nucleic acid molecule which is a complement of the nucleotide sequence shown in SEQ ID

NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, ~~the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____~~, or a portion thereof. A nucleic acid molecule which is complementary to a given nucleotide sequence is one which is sufficiently complementary to the given nucleotide sequence that it can hybridize to the given nucleotide sequence thereby forming a stable duplex.

Replace the paragraph beginning at page 49, line 25 with the following amended paragraph:

Moreover, the nucleic acid molecule of the invention can comprise only a portion of a nucleic acid sequence encoding PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11, for example, a fragment which can be used as a probe or primer or a fragment encoding a biologically active portion of PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11. The nucleotide sequence determined from the cloning of the PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 gene allows for the generation of probes and primers designed for use in identifying and/or cloning PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 homologues in other cell types, e.g., from other tissues, as well as PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 homologues and orthologs from other mammals. The probe/primer typically comprises substantially purified oligonucleotide. The oligonucleotide typically comprises a region of nucleotide sequence that hybridizes under stringent conditions to at least about 12, preferably about 25, more preferably about 50, 75, 100, 125, 150, 175, 200, 250, 300, 350 or 400 consecutive nucleotides of the sense or anti-sense sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, SEQ ID NO:25, ~~the cDNA of ATCC _____, the~~

~~eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, or of a naturally occurring mutant of one of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, or SEQ ID NO:25, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, or the eDNA of ATCC _____.~~

Replace the paragraph beginning at page 50, line 30 with the following amended paragraph:

A nucleic acid fragment encoding a "biologically active portion" of PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 can be prepared by isolating a portion of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, ~~or SEQ ID NO:25, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, the eDNA of ATCC _____, or the eDNA of ATCC _____~~ which encodes a polypeptide having a PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 biological activity, expressing the encoded portion of PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 protein (e.g., by recombinant expression in vitro) and assessing the activity of the encoded portion of PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11.

Replace the paragraph beginning at page 51, line 7 with the following amended paragraph:

The invention further encompasses nucleic acid molecules that differ from the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, or SEQ ID NO:25, ~~the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, or the cDNA of ATCC _____~~ due to degeneracy of the genetic code and thus encode the same PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 protein as that encoded by the nucleotide sequence shown in SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, or SEQ ID NO:25, ~~the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, or the cDNA of ATCC _____~~.

Replace the paragraph beginning at page 51, line 21 with the following amended paragraph:

In addition to the PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 nucleotide sequences shown in SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, or SEQ ID NO:25, ~~the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, or the cDNA of ATCC _____~~, it will be appreciated by those skilled in the art that DNA sequence polymorphisms that lead to changes in the amino acid sequences of PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 may exist within a population (e.g., the human population). Such genetic polymorphism in the PYRIN-2, PYRIN-3,

Replace the paragraph beginning at page 52, line 19 with the following amended paragraph:

Accordingly, in another embodiment, an isolated nucleic acid molecule of the invention

is at least 150 (300, 325, 350, 375, 400, 425, 450, 500, 550, 600, 650, 700, 800, 900, 1000, 1100,

1200, 1300, 1400, 1500, 1600, 1800, 2000, 2250, or 2500) nucleotides in length and hybridizes

under stringent conditions to the nucleic acid molecule comprising the nucleotide sequence,

preferably the coding sequence, of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7,

SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID

NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, or SEQ ID NO:25; the cDNA of

ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____,

the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, or the cDNA of

ATCC _____.

Replace the paragraph beginning at page 53, line 6 with the following amended paragraph:

In addition to naturally-occurring allelic variants of the PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 sequence that may exist in the population, the skilled artisan will further appreciate that changes can be introduced by mutation into the nucleotide sequence of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, or SEQ ID NO:25, ~~the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____,~~ thereby leading to changes in the amino acid sequence of the encoded protein without altering the functional ability of the protein. For example, one can make nucleotide substitutions leading to amino acid substitutions at "non-essential" amino acid residues. A "non-essential" amino acid residue is a residue that can be altered from the wild-type sequence of PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 protein without altering the biological activity, whereas an "essential" amino acid residue is required for biological activity. For example, amino acid residues that are conserved among the PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11, proteins of various species are predicted to be particularly unamenable to alteration.

Replace the paragraph beginning at page 53, line 32 with the following amended paragraph:

Accordingly, another aspect of the invention pertains to nucleic acid molecules encoding PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 proteins that contain changes in amino acid residues that are not essential for activity. Such PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 proteins differ in amino acid sequence from SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ

SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:13, SEQ ID NO:15, SEQ ID NO:18, SEQ ID NO:20, SEQ ID NO:22, or SEQ ID NO:24 and yet retain biological activity. In one embodiment, the isolated nucleic acid molecule includes a nucleotide sequence encoding a protein that includes an amino acid sequence that is at least about 45% identical, 65%, 75%, 85%, 95%, or 98% identical to the amino acid sequence of SEQ ID NO:2, SEQ ID NO:4, SEQ ID NO:6, SEQ ID NO:8, SEQ ID NO:10, SEQ ID NO:13, SEQ ID NO:15, SEQ ID NO:18, SEQ ID NO:20, SEQ ID NO:22, or SEQ ID NO:24. An isolated nucleic acid molecule encoding a PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 protein having a sequence which differs from that of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, or SEQ ID NO:25, ~~the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____~~, can be created by introducing one or more nucleotide substitutions, additions or deletions into the nucleotide sequence of PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 (SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, or SEQ ID NO:25, ~~the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, or the cDNA of ATCC _____~~) such that one or more amino acid substitutions, additions or deletions are introduced into the encoded protein. Mutations can be introduced by standard techniques, such as site-directed mutagenesis and PCR-mediated mutagenesis. Preferably, conservative amino acid substitutions are made at one or more predicted non-essential amino acid residues. Thus, for example, 1%, 2%, 3%, 5%, or 10% of the amino acids can be replaced by conservative substitution. A "conservative amino acid substitution" is one in which the amino acid residue is replaced with an amino acid residue having a similar side chain. Families of amino acid residues having similar side chains have been defined in the art. These families include amino acids with basic side

chains (e.g., lysine, arginine, histidine), acidic side chains (e.g., aspartic acid, glutamic acid), uncharged polar side chains (e.g., glycine, asparagine, glutamine, serine, threonine, tyrosine, cysteine), nonpolar side chains (e.g., alanine, valine, leucine, isoleucine, proline, phenylalanine, methionine, tryptophan), beta-branched side chains (e.g., threonine, valine, isoleucine) and aromatic side chains (e.g., tyrosine, phenylalanine, tryptophan, histidine). Thus, a predicted nonessential amino acid residue in PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 is preferably replaced with another amino acid residue from the same side chain family. Alternatively, mutations can be introduced randomly along all or part of a PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 coding sequence, such as by saturation mutagenesis, and the resultant mutants can be screened for PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 biological activity to identify mutants that retain activity. Following mutagenesis, the encoded protein can be expressed recombinantly and the activity of the protein can be determined.

Replace the paragraph beginning at page 86, line 3 with the following amended paragraph:

A transgenic animal of the invention can be created by introducing PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11-encoding nucleic acid into the male pronuclei of a fertilized oocyte, e.g., by microinjection, retroviral infection, and allowing the oocyte to develop in a pseudopregnant female foster animal. The PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 cDNA sequence, e.g., that of SEQ ID NO:1, SEQ ID NO:3, SEQ ID NO:5, SEQ ID NO:7, SEQ ID NO:9, SEQ ID NO:11, SEQ ID NO:12, SEQ ID NO:14, SEQ ID NO:16, SEQ ID NO:17, SEQ ID NO:19, SEQ ID NO:21, SEQ ID NO:23, or SEQ ID NO:25, ~~the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, the cDNA of ATCC _____, or the cDNA of ATCC _____~~ can be introduced as a transgene into the genome of a non-human animal. Alternatively, a nonhuman homolog or

ortholog of the human PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 gene, such as a mouse PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 gene, can be isolated based on hybridization to the human PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 cDNA and used as a transgene. Intronic sequences and polyadenylation signals can also be included in the transgene to increase the efficiency of expression of the transgene. A tissue-specific regulatory sequence(s) can be operably linked to the PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 transgene to direct expression of PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 protein to particular cells. Methods for generating transgenic animals via embryo manipulation and microinjection, particularly animals such as mice, have become conventional in the art and are described, for example, in U.S. Patent Nos. 4,736,866 and 4,870,009, U.S. Patent No. 4,873,191 and in Hogan, *Manipulating the Mouse Embryo*, (Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N.Y., 1986). Similar methods are used for production of other transgenic animals. A transgenic founder animal can be identified based upon the presence of the PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 transgene in its genome and/or expression of PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 mRNA in tissues or cells of the animals. A transgenic founder animal can then be used to breed additional animals carrying the transgene. Moreover, transgenic animals carrying a transgene encoding PYRIN-2, PYRIN-3, PYRIN-5, PYRIN-6, PYRIN-7, PYRIN-8, PYRIN-10, or PYRIN-11 can further be bred to other transgenic animals carrying other transgenes.